

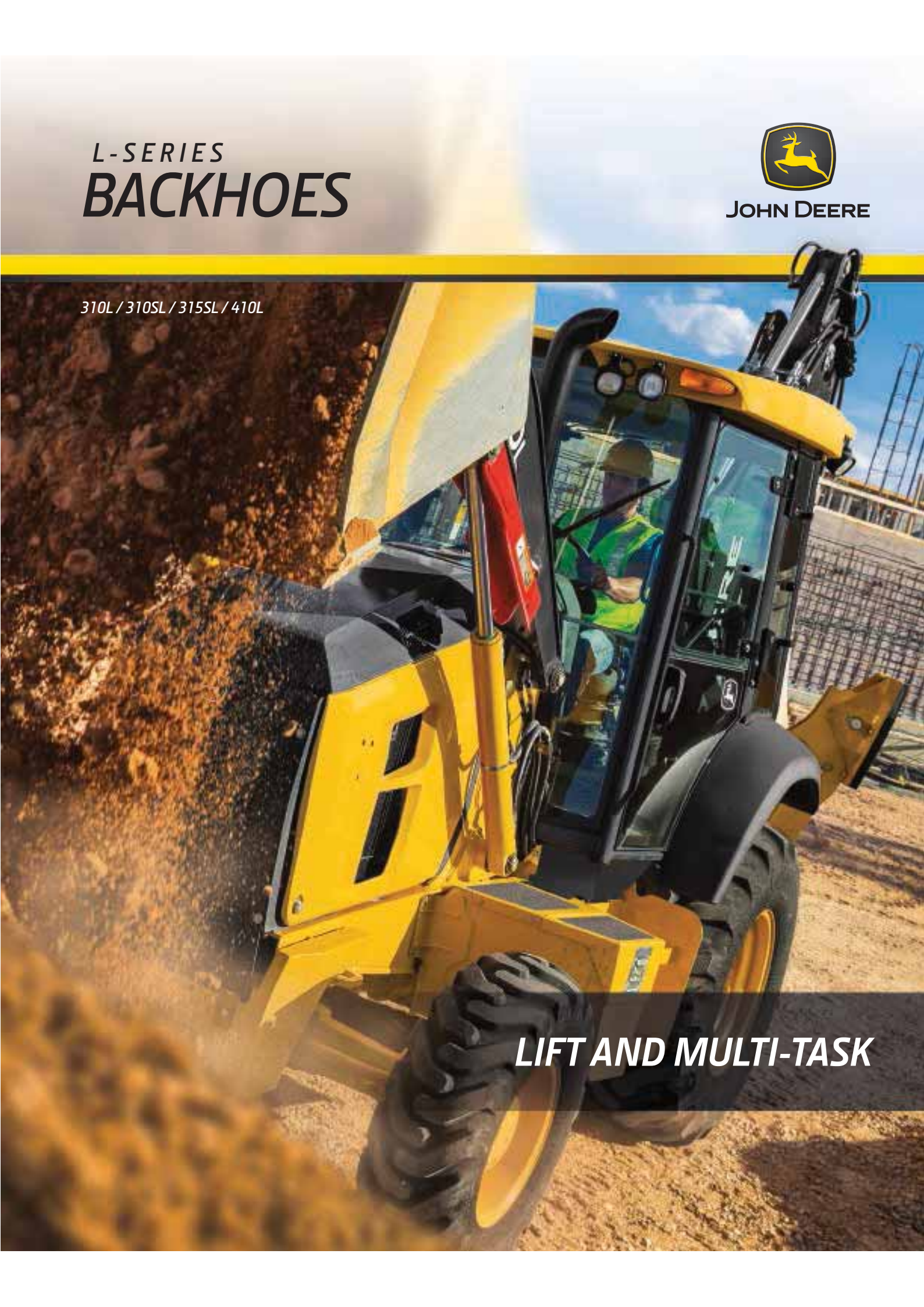
L-SERIES  
**BACKHOES**



**JOHN DEERE**

310L / 310SL / 315SL / 410L

**LIFT AND MULTI-TASK**





*INTRODUCING THE **L-SERIES***

*LOOKING FOR MORE  
RELIABILITY AND PRODUCTIVITY?*

***WE'VE GOT  
YOUR BACK.***



RELIABLE



PRODUCTIVE



TO BUILD A BETTER BACKHOE,  
**WE WENT TO YOU, OUR CUSTOMER.**

Through our Customer Advocate Group (CAG), we collected invaluable input from owners and operators — the ones who know best what customers really need.

**You spoke.** And we listened and responded by improving our product line with updates like pressure-compensated load-sensing (PCLS) hydraulics on the 410L, unsurpassed pilot controls, and a John Deere PowerShift™ transmission — and that's just the start. As always, we're boosting your productivity and maximizing uptime, while lowering daily operating costs. *When it comes to delivering what you want, **nobody responds like John Deere.***



**SIDE-SHIFT FOR TIGHT SPACES WITH THE 315SL.**

Standard-equipped side-shift backhoes can be offset up to 542 mm right or left of center, making them ideal for work in crowded urban areas and around obstacles.

# GET MORE DONE WITH ONE

## MULTIFUNCTION VERSATILITY, UNRIVALED CAPABILITY.

Why run two machines when one will do? Whether you're loading trucks, busting up blacktop, placing pipe, digging trenches, or moving materials, an L-Series Backhoe is more than up to the task. Building upon our highly productive K-Series Backhoes, the L-Series features PCLS hydraulics (on the 410L), for superb multifunction performance. The result: our most versatile backhoes ever.

### True four-wheel drive on command

Standard limited-slip mechanical-front-wheel drive (MFWD) (optional on the 310L) delivers superior traction in any ground condition. Engage momentary MFWD "on the fly" with the touch of a button on the new loader control.

### Powertrain performance

Responsive and productive standard five-speed transmission on the 310SL, 315SL, and 410L provides transport speeds up to 40 km/h. Add the AutoShift option and increase versatility in any application.

### Control the ride and the load

With ride control activated, front loader hydraulic cylinders act as a shock absorber, smoothing travel over rough terrain, helping full loads reach their destination, and reducing operator fatigue. Optional Auto Ride Control kit eliminates the need to engage/disengage ride control every time the front bucket is loaded and can be adjusted to be enabled between 1.6–24.1 km/h.

### Smooth gear changes

PowerShift transmission provides on-the-go clutchless gear changes for the operator.

### Powerful engines

Trust John Deere PowerTech 4.5L engines to provide emission solutions that are proven, integrated, simple, and supported, for the muscle needed to power through any workday.

### Improved multipurpose bucket

Be more productive in more applications with our new standard multipurpose bucket.



**4-in-1**  
MULTIPURPOSE  
BUCKET





**MORE  
MOBILE. MORE  
PRODUCTIVE.**

# SAY GOODBYE TO BUMPS IN THE ROAD.

Beat operator fatigue and work faster across large jobsites with the L-Series Backhoe's optional ride control and exclusive PowerShift transmission. These standard features enable you to effortlessly traverse any terrain and reduce spillage from loaded buckets in the roughest of conditions.



## 4WD

OPTION AT YOUR  
COMMAND



### PowerShift transmission

Take advantage of smooth shifting and reliable performance under all load sizes and operating conditions with PowerShift's hydraulically actuated clutch packs.

### In-the-field update

Even if you order your machine without ride control, you can easily update it with the field kit. Simply call your dealer to order the kit and have it installed.

### Limited-slip differential

Limited-slip differential in the front axle provides best-in-class tractive effort and excellent 4x4 performance. Comes standard on all models.

### Five-speed transmission (standard on 310SL, 315SL, and 410L)

Additional forward gearing enables top speeds of up to 40 km/h.

### Optional AutoShift transmission\*

The smoothest-shifting automatic transmission in the industry improves operator comfort by reducing the number of times the transmission-control lever needs to be actuated during operation.

\*Not available on the 310L.



#### WHAT THE EXPERTS ARE SAYING:

“ Thanks to Deere asking for my input, I get a better machine, and these improvements make all the difference in my day's productivity. ”

— Todd Heiderscheidt, Backhoe CAG Member



*REDESIGNED PILOT TOWERS  
GIVE MORE LEGROOM AND  
SPACE TO ROTATE*

## ***MORE CONTROL AT YOUR FINGERTIPS*** *MAXIMUM PRODUCTIVITY IS CLOSE AT HAND.*

Increased productivity is within easy reach in an L-Series Backhoe. Redesigned loader-control grip and pilot controls provide effortless, fingertip operation of the backhoe and loader, while other machine functions are conveniently located on the steering column.





## LED SPOT- OR FLOODLIGHTS

### **New easy-to-use loader-control grip**

New “palm-on-top” loader-control grip is even more comfortable and easy to use. Control of clutch disconnect, transmission quick-shift, auxiliary proportional roller, and momentary mechanical-front-wheel drive is at your fingertips.

### **Easy, fingertip control of backhoe functions**

Fingertip electrohydraulic (EH) control of redesigned pilot levers provides even easier operation of backhoe functions, including selective flow and the horn.

### **Extend your workday**

LED lighting kit includes choice of LED spot- or floodlights. For enhanced visibility when your workday goes long.

### **More legroom and space to rotate**

Redesigned pilot towers provide more legroom and additional space for transitioning between loader and backhoe operation.

### **Fatigue-beating comfort**

L-Series Backhoes are loaded with creature comforts, including an efficient HVAC system and an adjustable mechanical or air-suspension seat.

### **Steering column controls**

Exterior lights, wipers, and turn signals are now more conveniently located on the multifunction lever on the steering column — just like a regular vehicle — helping operators keep their eyes on the job at hand.



# **UNSURPASSED RELIABILITY**

## **WON'T BACK DOWN. OR LET YOU DOWN.**

Built with state-of-the-art tools and technology by a quality-conscious workforce at our world-class facility in Dubuque, Iowa, U.S.A., L-Series Backhoes deliver unmatched reliability and uptime. When you know how they're built, you'll run a Deere.



### **Onboard diagnostics center**

The most advanced onboard-diagnostics technology in the industry is standard on all L-Series Backhoes. The exclusive John Deere WorkSight™ suite of telematic solutions includes JDLink™ Ultimate with real-time machine monitoring and remote diagnostics to help increase uptime while lowering operating costs.

### **Quick, clean filter changes**

Vertical spin-on engine, transmission, and hydraulic filters and quick-release fuel filters allow fast, clean changes. Standard heavy-duty transmission oil filter increases reliability.

### **More durable multipurpose bucket**

Our rugged multipurpose bucket has been reinforced with thicker plates and stronger cylinder mountings for longer life.

### **Bias and radial tire options**

Choose from a variety of factory-installed tire options, for the traction, exceptional performance, and long service life your specific application requires.

### **Diff-lock protection**

Enabled through the monitor, differential-lock protection prevents engagement at high travel speeds and the resulting wear and tear on axle components.

### **Maintenance-free batteries**

Standard maintenance-free batteries reduce periodic servicing, improve cold-starting reliability, and lengthen battery life.

### **Superior hydraulic oil**

L-Series Backhoes come factory-filled with Hydra™ premium all-season, anti-wear hydraulic oil specifically designed for construction equipment. Or for cold weather, opt for Hydra™ XR, which offers all-season protection from from -40 to 40 deg. C.

### **Protect your investment**

Machine-security system with touchpad passcode helps prevent unauthorized operation.



**5.99 m**

MAXIMUM DIGGING DEPTH  
(FOR 410L WITH OPTIONAL  
EXTENDABLE DIPPERSTICK)

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# EASY MAINTENANCE

*KEEP THE PEACE. AND YOUR PEACE OF MIND.*

## Save fuel with economy mode

Standard economy mode can be configured separately between loader and backhoe functions. For example, activate economy mode for backhoe functions while retaining full power for loader functions — a Deere exclusive. This helps maximize fuel usage in lighter-work applications with minimal effect on machine performance.

## Improved diagnostics

State-of-the-art multi-language monitor clearly displays machine diagnostics. Operators can program a multitude of time-specific functions such as auto shutdown and auto-idle quickly and easily.

## Minimize downtime and expense

Same-side ground-level service points help speed daily checks and fills. Other commonsense features such as quick-change filters, extended service intervals, simple-to-read sight gauges, and easy-access grease zerks help increase uptime and lower daily operating costs.

## Quick and easy A/C cleanout

Hinged air-conditioner condenser enables convenient cleaning of the unit, for maximum efficiency.



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### Quiet, fuel-efficient fan

Standard suction-type direct-drive fan helps conserve power and fuel, while reducing noise. A temperature-controlled (viscous) variable-speed fan option is available for all models.

### Durable engine technology

All L-Series models feature John Deere PowerTech 4.5L EPA Tier 3/EU Stage IIIA or Tier 2/Stage II diesel engines, providing emission solutions that are proven, integrated, simple, and supported.

### Save fuel and reduce noise

Auto-idle decreases engine speed when hydraulics aren't in use, to help maintain quiet working conditions and conserve precious fuel. Auto shutdown turns off the engine after an operator-selected period of inactivity, further keeping noise and fuel consumption down.



### Get valuable insight with **JOHN DEERE WORKSIGHT**

John Deere WorkSight is an exclusive suite of telematic solutions that increases uptime while lowering operating costs. At its heart, JDLink Ultimate machine monitoring provides real-time utilization data and alerts to help you maximize productivity and efficiency while minimizing downtime. Remote diagnostics enable your dealer to read codes, record performance data, and even update software without a trip to the jobsite.

### Keep downtime down with **ULTIMATE UPTIME**

Ultimate Uptime, featuring John Deere WorkSight, is a customizable support solution available exclusively from your Deere dealer. This flexible offering maximizes equipment availability with standard John Deere WorkSight capabilities that can help prevent future downtime and speed repairs when needed. In addition to the base John Deere WorkSight features, our dealers work with you to build an uptime package that meets the specific needs of your machine, fleet, project, and business, including customized maintenance and repair agreements, onsite parts availability, extended warranties, fluid sampling, response-time guarantees, and more.



# 310L SPECIFICATIONS

Engine		310L			
Manufacturer and Model	John Deere PowerTech™ 4045TT096 turbocharged	John Deere PowerTech™ E 4045HT086 turbocharged	John Deere PowerTech™ Plus 4045HT085 turbocharged, designed for optimal performance at high altitude		
Non-Road Emission Standard	EPA Tier 2/EU Stage II	EPA Tier 3/EU Stage IIIA	EPA Tier 3/EU Stage IIIA+		
Displacement	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)		
Net Peak Power (ISO 9249)	60 kW (81 hp) at 2,000 rpm	65 kW (87 hp) at 1,966 rpm	67 kW (91 hp) at 2,000 rpm		
With Optional Viscous Fan, Cab, and 120-amp Alternator	63 kW (84 hp) at 2,006 rpm				
Net Peak Torque (ISO 9249)	344 Nm (254 lb.-ft.) at 1,300 rpm	376 Nm (277 lb.-ft.) at 1,300 rpm	380 Nm (280 lb.-ft.) at 1,400 rpm		
With Optional Viscous Fan, Cab, and 120-amp Alternator	349 Nm (257 lb.-ft.) at 1,400 rpm				
Net Torque Rise	35%	43%	43%		
With Optional Viscous Fan, Cab, and 120-amp Alternator	29%	37%	37%		
Lubrication	Pressure system with spin-on filter and cooler	Pressure system with spin-on filter and cooler			
Air Cleaner	Dual-stage dry type with safety element and evacuator valve				
Cooling					
Fan Type	Suction-type cooling fan standard; temperature-controlled (viscous) variable-rate fan optional				
Engine Coolant Rating	-40 deg. C (-40 deg. F)				
Engine Oil Cooler	Oil to water				
Powertrain					
Transmission	4-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever				
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)				
Maximum Travel Speeds with Standard Engine, Measured with 19.5L-24 Rear Tires	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>	
Gear 1	5.5 km/h (3.4 mph)	7.0 km/h (4.3 mph)	5.6 km/h (3.5 mph)	7.0 km/h (4.3 mph)	
Gear 2	10.1 km/h (6.3 mph)	12.7 km/h (7.9 mph)	10.2 km/h (6.3 mph)	12.8 km/h (8.0 mph)	
Gear 3	20.5 km/h (12.7 mph)	—	20.7 km/h (12.9 mph)	—	
Gear 4	34.2 km/h (21.3 mph)	—	34.9 km/h (21.7 mph)	—	
Axles					
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		22 deg.		
Axle Ratings	<i>Non-Powered Front</i>	<i>Mechanical-Front-Wheel Drive (MFWD) Rear</i>	<i>Non-Powered Front</i>	<i>MFWD</i>	<i>Rear</i>
SAE J43	4500 kg (9,921 lb.)	4000 kg (8,818 lb.) 6000 kg (13,228 lb.)	4500 kg (9,921 lb.)	4500 kg (9,921 lb.)	6500 kg (14,330 lb.)
Dynamic	7000 kg (15,432 lb.)	8500 kg (18,739 lb.) 9500 kg (20,944 lb.)	7000 kg (15,432 lb.)	8500 kg (18,739 lb.)	9500 kg (20,944 lb.)
Static	20 500 kg (45,195 lb.)	23 500 kg (51,809 lb.) 26 000 kg (57,320 lb.)	20 500 kg (45,195 lb.)	23 500 kg (51,809 lb.)	26 000 kg (57,320 lb.)
Ultimate	32 500 kg (71,650 lb.)	37 000 kg (81,571 lb.) 39 500 kg (87,083 lb.)	32 500 kg (71,650 lb.)	37 000 kg (81,571 lb.)	39 500 kg (87,083 lb.)
Differentials					
MFWD Axle	Open – standard; automatic, limited-slip traction control – optional				
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock				
Steering (ISO 5010)		Hydrostatic power steering and emergency steering			
Axle	<i>Non-Powered Front</i>		<i>MFWD</i>		
Curb-Turning Radius					
With Brakes	3.49 m (11 ft. 5 in.)		3.59 m (11 ft. 9 in.)		
Without Brakes	4.10 m (13 ft. 5 in.)		4.25 m (13 ft. 11 in.)		
Bucket-Clearance Circle					
With Brakes	10.14 m (33 ft. 3 in.)		10.23 m (33 ft. 7 in.)		
Without Brakes	11.01 m (36 ft. 1 in.)		11.19 m (36 ft. 9 in.)		
Steering Wheel Turns (lock to lock)	3.2		2.7		
MFWD and Rear Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears				

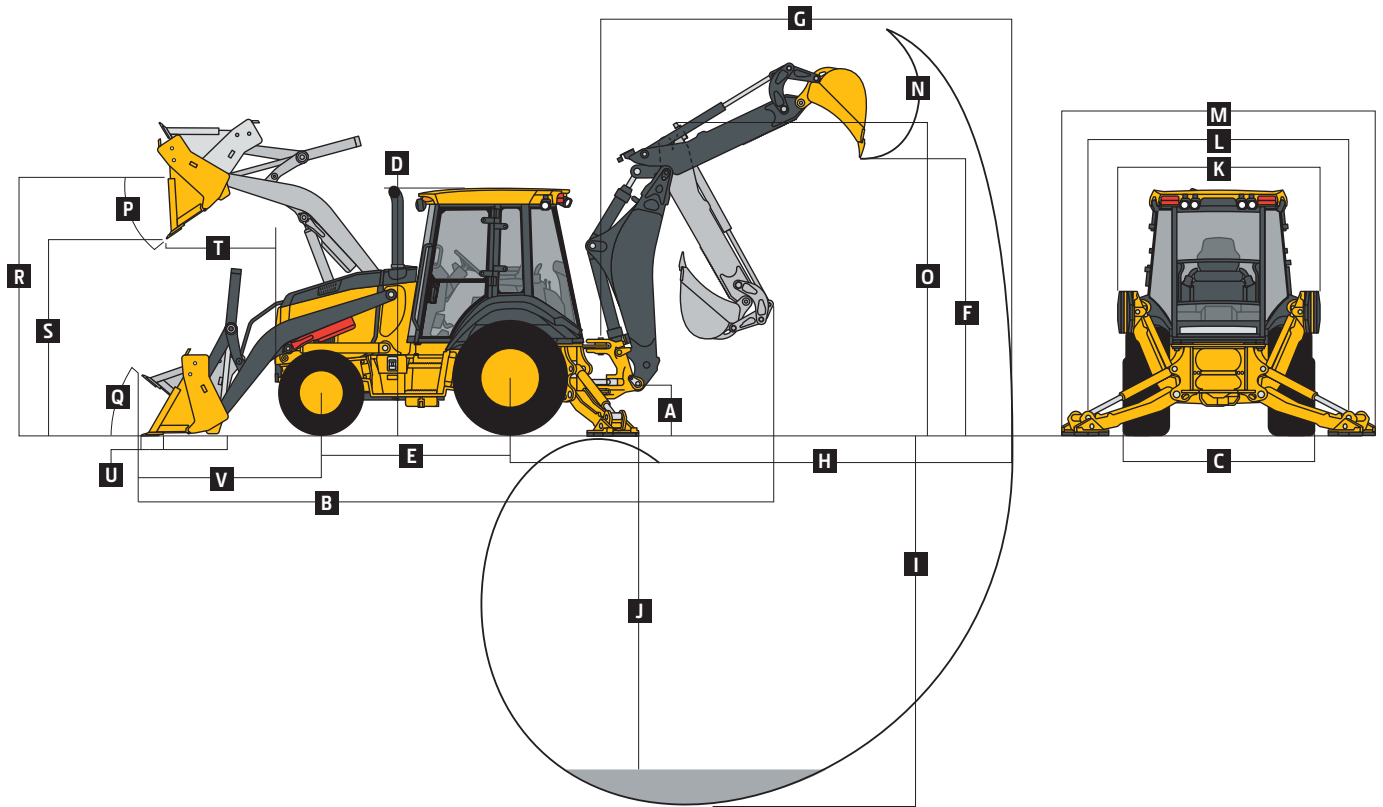
# 310L SPECIFICATIONS



<b>Powertrain (continued)</b>	<b>310L</b>	
<b>Brakes (ISO 3450)</b>		
Service	Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing	
Parking	Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control	
<b>Hydraulics</b>		
Main Pump	Open center, single-gear pump	
Pump Flow at 2,200 rpm, Backhoe and Loader	106 L/m (28 gpm)	
System Relief Pressure		
Backhoe	24 993 kPa (3,625 psi)	
Loader	22 063 kPa (3,200 psi)	
<b>Controls</b>		
Backhoe	2-lever manual standard; pilot controls with pattern select and manual and/or electric auxiliary functions optional; field kit available for 3-lever manual controls with foot swing	
Loader	Single-lever control with electric clutch cutoff switch standard; manual auxiliary function (2nd lever) and single-lever control with electric clutch cutoff optional	
<b>Electrical</b>		
Voltage	12 volt	
Alternator Rating	90 amp	
<b>Lights</b>	10 halogen: 4 front, 4 rear, and 2 side docking (32,500 candlepower each); turn signals and flashers: 2 front and 2 rear; stop and taillights; and 2 rear reflectors	
<b>Operator Station</b>		
Type (SAE J1040)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof	
<b>Tires/Wheels</b>		
	<i>Front</i>	<i>Rear</i>
Non-Powered Front Axle	12.5/80-18 F3 (12)	19.5L-24 R-4 (12)
With MFWD	12-16.5 NHS (12)	19.5L-24 R-4 (12)
	12.5/80-18 I3 (12)	19.5L-24 R-4 (10)
	12.5/80-18 R4 (10)	19.5L-24 R-4 (12)
	12.5/80-18 I3 (12)	21L-24 R4 (12)
	12.5/80-18 R4 (10)	21L-24 R4 (12)
	340/80R18 XMCL	500/70R24 XMCL
	340/80R18 550	500/70R24 550
	340/80R18 580	500/70R24 580
<b>Serviceability</b>		
<b>Refill Capacities</b>	<i>EPA Tier 2/EU Stage II</i>	<i>EPA Tier 3/EU Stage IIIA</i>
Cooling System	21 L (22.2 qt.)	30 L (31.7 qt.)
Rear Axle	18 L (19 qt.)	18 L (19 qt.)
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)	13 L (13.7 qt.)
Torque Converter and Transmission	15.1 L (16 qt.)	15.1 L (16 qt.)
Fuel Tank (with ground-level fueling)	140.1 L (37 gal.)	140.1 L (37 gal.)
Hydraulic System	104.1 L (27.5 gal.)	104.1 L (27.5 gal.)
Hydraulic Reservoir	45 L (11.9 gal.)	45 L (11.9 gal.)
MFWD Housing		
Axle	6.5 L (6.9 qt.)	6.5 L (6.9 qt.)
Planetary (each)	0.9 L (1 qt.)	0.9 L (1 qt.)
Hydra™ XR Hydraulic Oil	Optional	Optional
<b>Operating Weights</b>		
With Full Fuel Tank, 79-kg (175 lb.) Operator, Standard Equipment, and Bumper	6545 kg (14,430 lb.)	
Typical with Cab, Extendable Dipperstick, and 204-kg (450 lb.) Counterweight	7203 kg (15,880 lb.)	
<b>Optional Components (weight difference between base equipment and option)</b>		
Cab	263 kg (580 lb.)	
MFWD with Tires	168 kg (370 lb.)	
Extendable Dipperstick	191 kg (420 lb.)	
Front Loader Coupler	257 kg (566 lb.)	
Backhoe Bucket Coupler	59 kg (130 lb.)	

# 310L

Overall Dimensions	310L
A Ground Clearance, Minimum	293 mm (12 in.)
B Overall Length, Transport	7.24 m (23 ft. 9 in.)
C Width Over Tires	2.16 m (7 ft. 1 in.)
D Height to Top of ROPS/Cab	2.81 m (9 ft. 3 in.)
E Length from Axle to Axle	
Non-Powered Front Axle	2.16 m (7 ft. 1 in.)
MFWD Axle	2.19 m (7 ft. 2 in.)



## Backhoe Dimensions and Performance 310L

Backhoe specifications are with 610-mm x 0.18-m<sup>3</sup> (24 in. x 6.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 65 deg.

Bucket Range	305–762 mm (12–30 in.)		
Digging Force			
Bucket Cylinder	48.2 kN (10,844 lb.)		
Crowd Cylinder	30.8 kN (6,992 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		
Leveling Angle	14 deg.		
Stabilizer Angle Rearward	18 deg.		
	<i>With Optional Extendable Dipperstick</i>		
	<i>With Standard Backhoe</i>	<i>Retracted</i>	<i>Extended</i>
F Loading Height, Truck Loading Position	3.41 m (11 ft. 2 in.)	3.49 m (11 ft. 6 in.)	4.15 m (13 ft. 7 in.)
G Reach from Center of Swing Pivot	5.42 m (17 ft. 10 in.)	5.49 m (18 ft. 0 in.)	6.51 m (21 ft. 4 in.)
H Reach from Center of Rear Axle	6.49 m (21 ft. 3 in.)	6.55 m (21 ft. 6 in.)	7.57 m (24 ft. 10 in.)
I Digging Depth (SAE maximum)	4.27 m (14 ft. 0 in.)	4.33 m (14 ft. 2 in.)	5.39 m (17 ft. 8 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.22 m (13 ft. 10 in.)	4.29 m (14 ft. 1 in.)	5.36 m (17 ft. 7 in.)
2440-mm (8 ft.) Flat Bottom	3.89 m (12 ft. 9 in.)	3.96 m (13 ft. 0 in.)	5.10 m (16 ft. 9 in.)
K Stabilizer Width, Transport	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)
L Stabilizer Spread, Operating	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)
M Stabilizer Overall Width, Operating	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)
N Bucket Rotation	190 deg.	190 deg.	190 deg.
O Transport Height	3.42 m (11 ft. 2 in.)	3.42 m (11 ft. 2 in.)	3.42 m (11 ft. 2 in.)



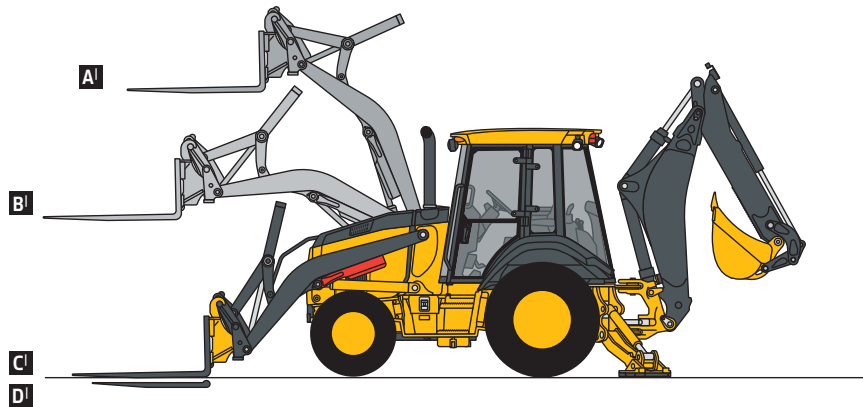
## Loader Dimensions and Performance

310L

<b>P</b> Bucket Dump Angle, Maximum	45 deg.			
<b>Q</b> Rollback Angle at Ground Level	40 deg.			
	<i>Heavy-duty</i>	<i>Heavy-duty</i>	<i>Heavy-duty long lip</i>	<i>Multipurpose</i>
Bucket Capacity	0.77 m <sup>3</sup> (1.00 cu. yd.)	0.86 m <sup>3</sup> (1.12 cu. yd.)	0.96 m <sup>3</sup> (1.25 cu. yd.)	0.96 m <sup>3</sup> (1.25 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)	2184 mm (86 in.)	2184 mm (86 in.)
Weight	363 kg (800 lb.)	390 kg (860 lb.)	405 kg (892 lb.)	794 kg (1,750 lb.)
Breakout Force	41.6 kN (9,353 lb.)	42.3 kN (9,504 lb.)	39.9 kN (8,978 lb.)	37.0 kN (8,311 lb.)
Lift Capacity, Full Height	3099 kg (6,833 lb.)	3179 kg (7,009 lb.)	2934 kg (6,469 lb.)	2605 kg (5,743 lb.)
<b>R</b> Height to Bucket Hinge Pin, Maximum	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
<b>S</b> Dump Clearance, Bucket at 45 deg.	2.71 m (8 ft. 11 in.)	2.74 m (9 ft. 0 in.)	2.64 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)
<b>T</b> Reach at Full Height, Bucket at 45 deg.	734 mm (28.9 in.)	699 mm (27.5 in.)	825 mm (32.5 in.)	737 mm (29.0 in.)
<b>U</b> Digging Depth Below Ground, Bucket Level	107 mm (4.2 in.)	107 mm (4.2 in.)	88 mm (3.5 in.)	147 mm (5.8 in.)
<b>V</b> Length from Front Axle Centerline to Bucket Cutting Edge	2.02 m (6 ft. 8 in.)	1.97 m (6 ft. 6 in.)	2.12 m (6 ft. 11 in.)	2.09 m (6 ft. 10 in.)

## Lift Capacity with Quick-Coupler Forks

<b>Hydraulic Capacity</b>	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines
<b>A</b> Maximum Height	1695 kg (3,736 lb.)	1561 kg (3,442 lb.)
<b>B</b> Maximum Reach	2646 kg (5,833 lb.)	2629 kg (5,795 lb.)
<b>C</b> At Ground Line	3583 kg (7,900 lb.)	3269 kg (7,207 lb.)
<b>D</b> Below Ground Line	262 mm (10.3 in.)	262 mm (10.3 in.)

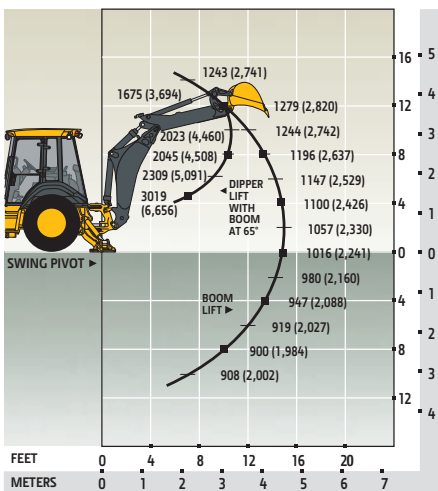


## Lift Capacity with Bucket

Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are 87% of the maximum lift force available. Calculated with 610-mm x 0.18-m<sup>3</sup> (24 in. x 6.5 cu. ft.) bucket. Bucket impacts overall lift capacity.

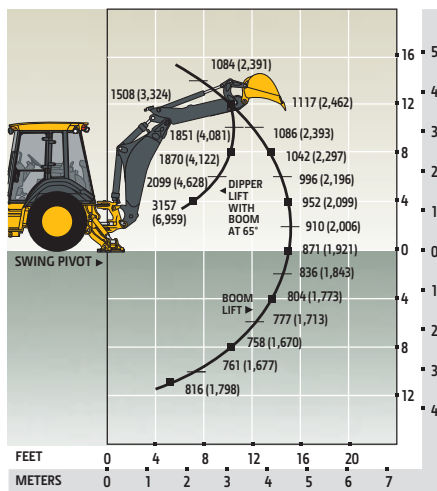
### STANDARD LIFT

With Standard Dipperstick



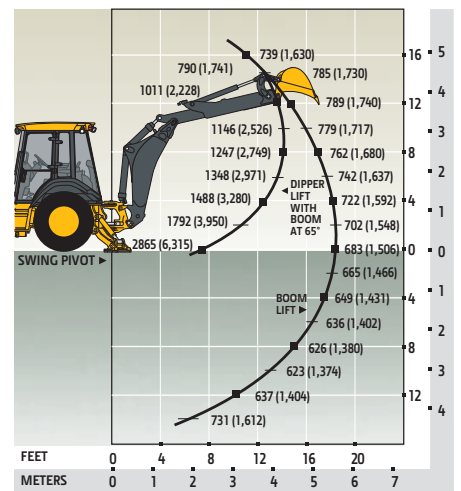
### STANDARD LIFT

With 1.06-m (3 ft. 6 in.) Extendable Dipperstick, Retracted



### STANDARD LIFT

With 1.06-m (3 ft. 6 in.) Extendable Dipperstick, Extended





# 310SL SPECIFICATIONS

Engine		310SL			
Manufacturer and Model	John Deere PowerTech™ 4045TT096 turbocharged	John Deere PowerTech™ E 4045HT086 turbocharged	John Deere PowerTech™ Plus 4045HT085 turbocharged, designed for optimal performance at high altitude		
Non-Road Emission Standard	EPA Tier 2/EU Stage II	EPA Tier 3/EU Stage IIIA	EPA Tier 3/EU Stage IIIA+		
Displacement	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)		
Net Peak Power (ISO 9249)	70 kW (94 hp) at 2,000 rpm	71 kW (96 hp) at 1,900 rpm	74 kW (99 hp) at 1,966 rpm		
With Optional Viscous Fan, Cab, and 120-amp Alternator	72 kW (97 hp) at 2,000 rpm				
Net Peak Torque (ISO 9249)	388 Nm (286 lb.-ft.) at 1,300 rpm	397 Nm (293 lb.-ft.) at 1,500 rpm	403 Nm (297 lb.-ft.) at 1,500 rpm		
With Optional Viscous Fan, Cab, and 120-amp Alternator	393 Nm (290 lb.-ft.) at 1,400 rpm				
Net Torque Rise	46%	42%	42%		
With Optional Viscous Fan, Cab, and 120-amp Alternator	39%	37%	37%		
Lubrication	Pressure system with spin-on filter and cooler	Pressure system with spin-on filter and cooler			
Air Cleaner	Dual-stage dry type with safety element and evacuator valve				
Cooling					
Fan Type	Suction-type cooling fan standard; temperature-controlled (viscous) variable-rate fan optional				
Engine Coolant Rating	-40 deg. C (-40 deg. F)				
Engine Oil Cooler	Oil to water				
Powertrain					
Transmission	5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission optional				
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)				
Maximum Travel Speeds with Standard Engine, Measured with 19.5L-24 Rear Tires	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>	
Gear 1	5.5 km/h (3.4 mph)	7.0 km/h (4.3 mph)	5.6 km/h (3.5 mph)	7.0 km/h (4.3 mph)	
Gear 2	10.1 km/h (6.3 mph)	12.7 km/h (7.9 mph)	10.2 km/h (6.3 mph)	12.8 km/h (8.0 mph)	
Gear 3	20.5 km/h (12.7 mph)	20.3 km/h (12.6 mph)	20.7 km/h (12.9 mph)	20.5 km/h (12.7 mph)	
Gear 4	34.8 km/h (21.6 mph)	—	34.8 km/h (21.6 mph)	—	
Gear 5	40.0 km/h (25.0 mph)	—	40.0 km/h (25.0 mph)	—	
Axles					
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		22 deg.		
Axle Ratings	<i>Non-Powered Front</i>	<i>Mechanical-Drive (MFWD) Front</i>	<i>Rear</i>	<i>Non-Powered Front</i>	<i>MFWD Rear</i>
SAE J43	4500 kg (9,921 lb.)	4500 kg (9,921 lb.)	6500 kg (14,330 lb.)	5000 kg (11,023 lb.)	7000 kg (15,432 lb.)
Dynamic	8500 kg (18,739 lb.)	8500 kg (18,739 lb.)	9500 kg (20,944 lb.)	8500 kg (18,739 lb.)	9500 kg (20,944 lb.)
Static	22 500 kg (49,604 lb.)	23 500 kg (51,809 lb.)	26 000 kg (57,320 lb.)	22 500 kg (49,604 lb.)	26 000 kg (57,320 lb.)
Ultimate	35 000 kg (77,162 lb.)	37 000 kg (81,571 lb.)	39 500 kg (87,083 lb.)	35 000 kg (77,162 lb.)	39 500 kg (87,083 lb.)
Differentials					
MFWD Axle	Automatic, limited-slip traction control				
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock				
Steering (ISO 5010)					
Axle	<i>Non-Powered Front</i>	<i>MFWD</i>			
Curb-Turning Radius					
With Brakes	3.49 m (11 ft. 5 in.)	3.66 m (12 ft. 0 in.)			
Without Brakes	4.10 m (13 ft. 5 in.)	4.35 m (14 ft. 3 in.)			
Bucket-Clearance Circle					
With Brakes	10.14 m (33 ft. 3 in.)	10.27 m (33 ft. 8 in.)			
Without Brakes	11.01 m (36 ft. 1 in.)	11.27 m (37 ft. 0 in.)			
Steering Wheel Turns (lock to lock)	3.2	2.7			

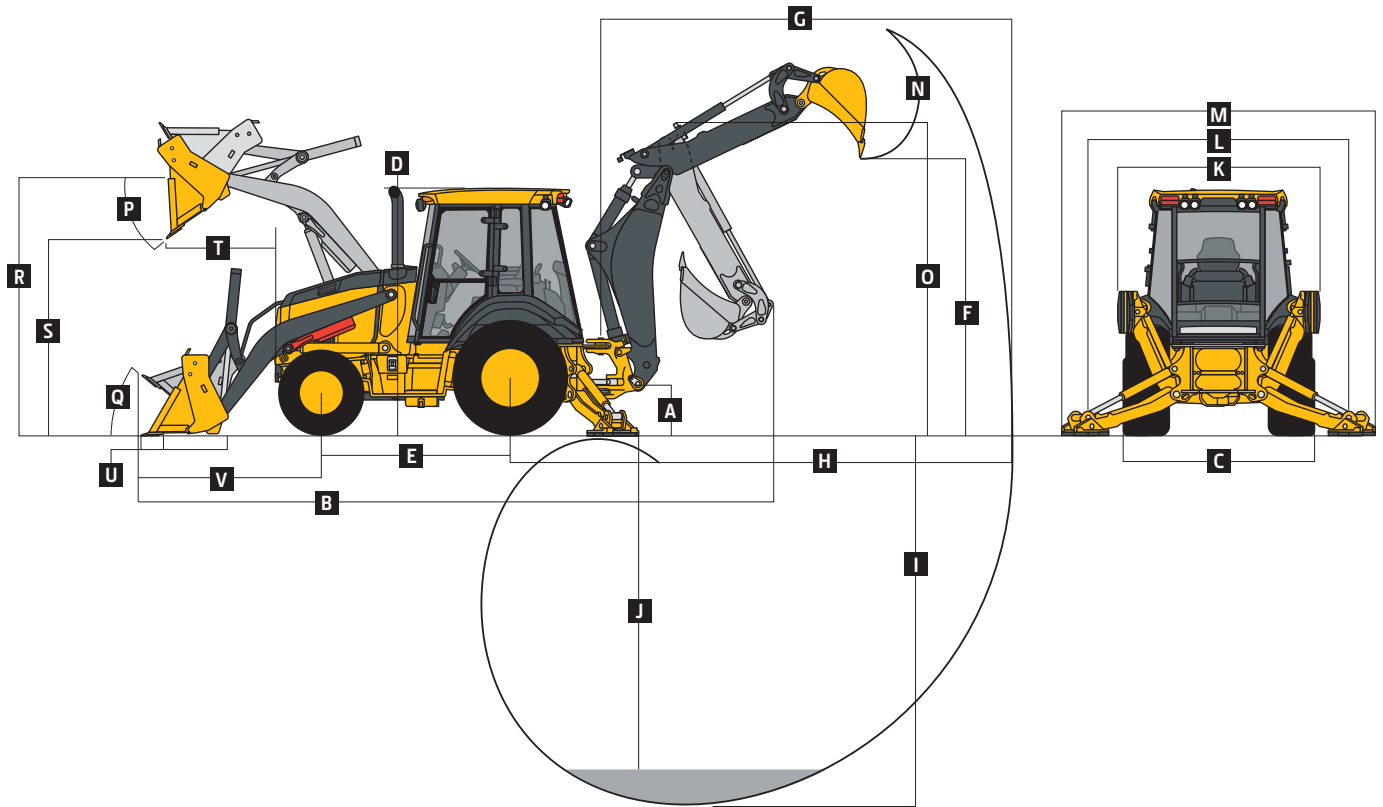
# 310SL SPECIFICATIONS



<b>Powertrain (continued)</b>	<b>310SL</b>	
<b>MFWD and Rear Axle</b>	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears	
<b>Brakes (ISO 3450)</b>		
Service	Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing	
Parking	Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control	
<b>Hydraulics</b>		
Main Pump	Open center, gear type, tandem with unloader	
Pump Flow at 2,200 rpm		
Backhoe	136 L/m (36 gpm)	
Loader	106 L/m (28 gpm)	
System Relief Pressure, Backhoe and Loader	24 993 kPa (3,625 psi)	
<b>Controls</b>		
Backhoe	2-lever manual standard; pilot controls with pattern select and manual and/or electric auxiliary functions optional; field kit available for 3-lever manual controls with foot swing	
Loader	Single-lever control with electric clutch cutoff switch and MFWD (momentary) standard; single-lever control with electric clutch cutoff optional	
<b>Electrical</b>		
Voltage	12 volt	
Alternator Rating	90 amp	
<b>Lights</b>	10 halogen: 4 front, 4 rear, and 2 side docking (32,500 candlepower each); turn signals and flashers: 2 front and 2 rear; stop and taillights; and 2 rear reflectors	
<b>Operator Station</b>		
Type (SAE J1040)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof	
<b>Tires/Wheels</b>		
	<i>Front</i>	<i>Rear</i>
Non-Powered Front Axle	12.5/80-18 F3 (12)	19.5L-24 R4 (12)
With MFWD	12.5/80-18 I3 (12)	19.5L-24 R4 (10)
	12.5/80-18 R4 (10)	19.5L-24 R4 (12)
	12.5/80-18 I3 (12)	21L-24 R4 (12)
	12.5/80-18 R4 (10)	21L-24 R4 (12)
	340/80R18 XMCL	500/70R24 XMCL
	340/80R18 550	500/70R24 550
	340/80R18 580	500/70R24 580
<b>Serviceability</b>		
<b>Refill Capacities</b>	<i>EPA Tier 2/EU Stage II</i>	<i>EPA Tier 3/EU Stage IIIA</i>
Cooling System	21 L (22.2 qt.)	30 L (31.7 qt.)
Rear Axle	18 L (19 qt.)	18 L (19 qt.)
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)	13 L (13.7 qt.)
Torque Converter and Transmission	15.1 L (16 qt.)	15.1 L (16 qt.)
Fuel Tank (with ground-level fueling)	140.1 L (37 gal.)	140.1 L (37 gal.)
Hydraulic System	104.1 L (27.5 gal.)	104.1 L (27.5 gal.)
Hydraulic Reservoir	45 L (11.9 gal.)	45 L (11.9 gal.)
MFWD Housing		
Axle	6.5 L (6.9 qt.)	6.5 L (6.9 qt.)
Planetary (each)	0.9 L (1 qt.)	0.9 L (1 qt.)
Hydrau™ XR Hydraulic Oil	Optional	Optional
<b>Operating Weights</b>		
With Full Fuel Tank, 79-kg (175 lb.) Operator, and Standard Equipment	7178 kg (15,825 lb.)	
Typical with Cab, Extendable Dipperstick, and 567-kg (1,250 lb.) Counterweight	8026 kg (17,695 lb.)	
<b>Optional Components (weight difference between base equipment and option)</b>		
Cab	263 kg (580 lb.)	
MFWD with Tires	220 kg (485 lb.)	
Extendable Dipperstick	222 kg (490 lb.)	
Front Loader Coupler	257 kg (566 lb.)	
Backhoe Bucket Coupler	63 kg (138 lb.)	

# 310SL

Overall Dimensions	310SL
A Ground Clearance, Minimum	330 mm (13 in.)
B Overall Length, Transport	7.28 m (23 ft. 11 in.)
C Width Over Tires	2.18 m (7 ft. 2 in.)
D Height to Top of ROPS/Cab	2.79 m (9 ft. 2 in.)
E Length from Axle to Axle	
Non-Powered Front Axle	2.16 m (7 ft. 1 in.)
MFWD Axle	2.19 m (7 ft. 2 in.)



## Backhoe Dimensions and Performance

Backhoe specifications are with 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 65 deg.

Bucket Range	305–762 mm (12–30 in.)		
Digging Force			
Bucket Cylinder	55.0 kN (12,356 lb.)		
With Heavy-Duty Cylinder Option	67.8 kN (15,254 lb.)		
Crowd Cylinder	36.6 kN (8,229 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		

	With Standard Backhoe	With Optional Extendable Dipperstick	
		Retracted	Extended
F Loading Height, Truck Loading Position	3.43 m (11 ft. 3 in.)	3.55 m (11 ft. 8 in.)	4.17 m (13 ft. 8 in.)
G Reach from Center of Swing Pivot	5.52 m (18 ft. 1 in.)	5.62 m (18 ft. 5 in.)	6.62 m (21 ft. 9 in.)
H Reach from Center of Rear Axle	6.58 m (21 ft. 7 in.)	6.68 m (21 ft. 11 in.)	7.68 m (25 ft. 2 in.)
I Digging Depth (SAE maximum)	4.34 m (14 ft. 3 in.)	4.48 m (14 ft. 8 in.)	5.53 m (18 ft. 2 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.31 m (14 ft. 2 in.)	4.44 m (14 ft. 7 in.)	5.49 m (18 ft. 0 in.)
2440-mm (8 ft.) Flat Bottom	3.97 m (13 ft. 0 in.)	4.11 m (13 ft. 6 in.)	5.24 m (17 ft. 2 in.)
K Stabilizer Width, Transport	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)
L Stabilizer Spread, Operating			
Standard Stabilizers	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)
Long Stabilizers	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
M Stabilizer Overall Width, Operating			
Standard Stabilizers	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)
Long Stabilizers	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)

## Backhoe Dimensions and Performance (continued) 310SL

With Optional Extendable Dipperstick

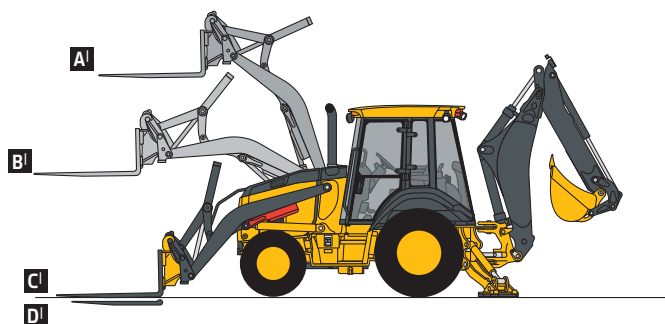
	With Standard Backhoe	Retracted	Extended
<b>N</b> Bucket Rotation	190 deg.	190 deg.	190 deg.
<b>O</b> Transport Height	3.49 m (11 ft. 6 in.)	3.50 m (11 ft. 6 in.)	3.50 m (11 ft. 6 in.)

## Loader Dimensions and Performance

<b>P</b> Bucket Dump Angle, Maximum	45 deg.			
<b>Q</b> Rollback Angle at Ground Level	40 deg.			
	<i>Heavy-duty</i>	<i>Heavy-duty long lip</i>	<i>Heavy-duty</i>	<i>Multipurpose</i>
Bucket Capacity	0.86 m <sup>3</sup> (1.12 cu. yd.)	0.96 m <sup>3</sup> (1.25 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)	2337 mm (92 in.)	2337 mm (92 in.)
Weight	390 kg (860 lb.)	405 kg (892 lb.)	521 kg (1,148 lb.)	863 kg (1,902 lb.)
Breakout Force	49.1 kN (11,045 lb.)	46.4 kN (10,438 lb.)	46.8 kN (10,532 lb.)	43.2 kN (9,714 lb.)
Lift Capacity, Full Height	3462 kg (7,632 lb.)	3198 kg (7,050 lb.)	3322 kg (7,324 lb.)	2834 kg (6,248 lb.)
<b>R</b> Height to Bucket Hinge Pin, Maximum	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
<b>S</b> Dump Clearance, Bucket at 45 deg.	2.62 m (8 ft. 7 in.)	2.64 m (8 ft. 8 in.)	2.68 m (8 ft. 10 in.)	2.65 m (8 ft. 8 in.)
<b>T</b> Reach at Full Height, Bucket at 45 deg.	699 mm (27.5 in.)	825 mm (32.5 in.)	695 mm (27.4 in.)	737 mm (29.0 in.)
<b>U</b> Digging Depth Below Ground, Bucket Level	106 mm (4.2 in.)	87 mm (3.4 in.)	151 mm (5.9 in.)	147 mm (5.8 in.)
<b>V</b> Length from Front Axle Centerline to Bucket Cutting Edge	1.97 m (6 ft. 6 in.)	2.12 m (6 ft. 11 in.)	2.04 m (6 ft. 8 in.)	2.09 m (6 ft. 10 in.)

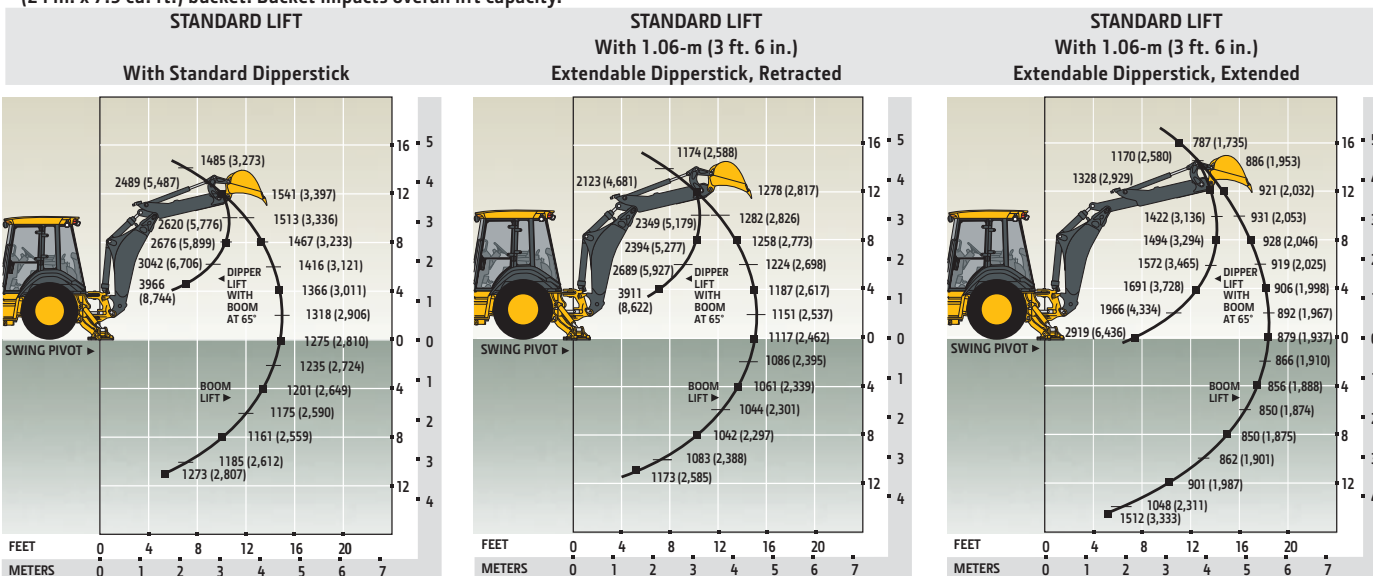
## Lift Capacity with Quick-Coupler Forks

Hydraulic Capacity	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines
<b>A'</b> Maximum Height	2073 kg (4,570 lb.)	1891 kg (4,170 lb.)
<b>B'</b> Maximum Reach	3162 kg (6,971 lb.)	3003 kg (6,621 lb.)
<b>C'</b> At Ground Line	4145 kg (9,138 lb.)	3883 kg (8,561 lb.)
<b>D'</b> Below Ground Line	211 mm (8.3 in.)	211 mm (8.3 in.)



## Lift Capacity with Bucket

Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are 87% of the maximum lift force available. Calculated with 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) bucket. Bucket impacts overall lift capacity.





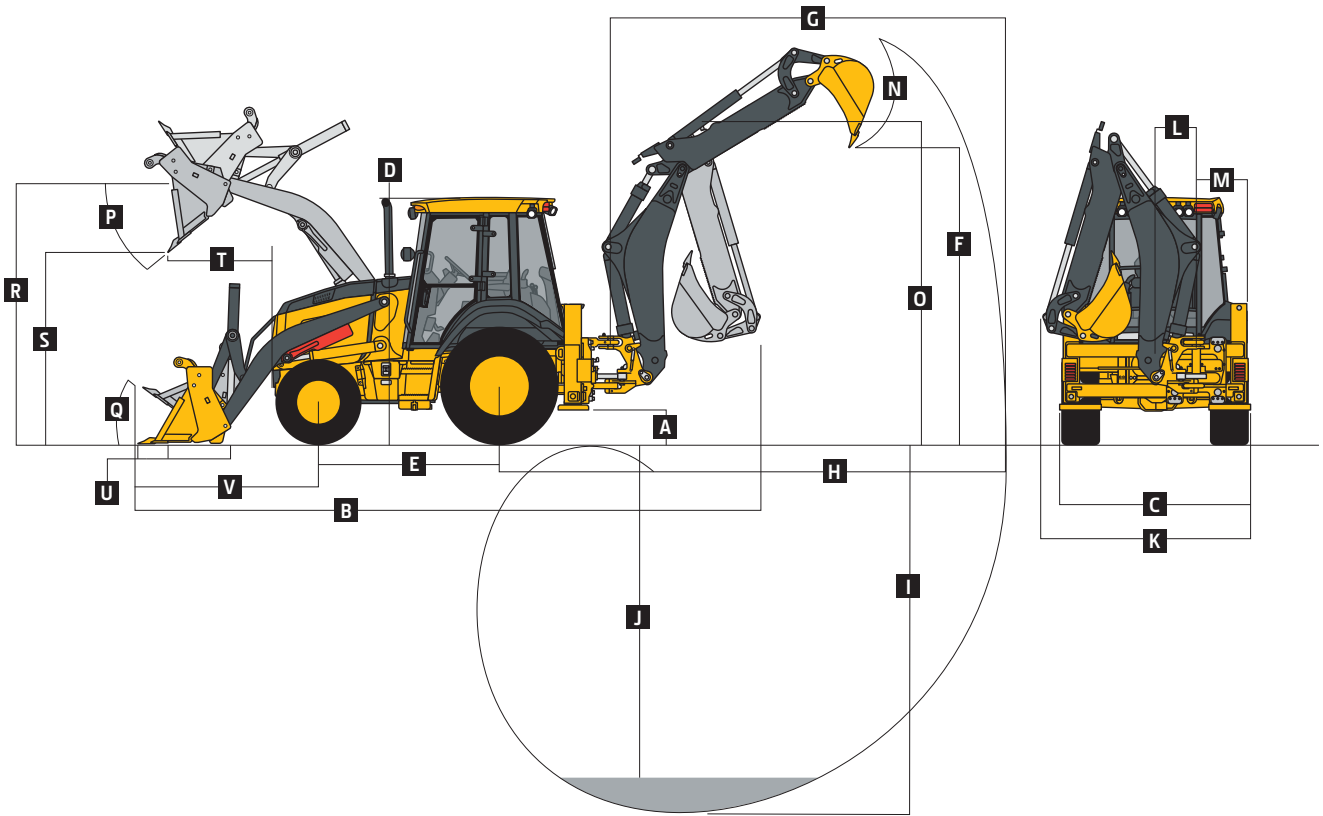
# 315SL SPECIFICATIONS

Engine		315SL	
Manufacturer and Model	John Deere PowerTech™ 4045TT096 turbocharged	John Deere PowerTech™ E 4045HT086 turbocharged	
Non-Road Emission Standard	EPA Tier 2/EU Stage II	EPA Tier 3/EU Stage IIIA	
Displacement	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)	
Net Peak Power (ISO 9249)	70 kW (94 hp) at 2,000 rpm	71 kW (96 hp) at 1,900 rpm	
With Optional Viscous Fan, Cab, and 120-amp Alternator	72 kW (97 hp) at 2,000 rpm	74 kW (99 hp) at 1,966 rpm	
Net Peak Torque (ISO 9249)	388 Nm (286 lb.-ft.) at 1,300 rpm	396 Nm (292 lb.-ft.) at 1,500 rpm	
With Optional Viscous Fan, Cab, and 120-amp Alternator	393 Nm (290 lb.-ft.) at 1,400 rpm	403 Nm (297 lb.-ft.) at 1,500 rpm	
Net Torque Rise	45%	42%	
With Optional Viscous Fan, Cab, and 120-amp Alternator	39%	37%	
Lubrication	Pressure system with spin-on filter and cooler	Pressure system with spin-on filter and cooler	
Air Cleaner	Dual-stage dry type with safety element and evacuator valve		
Cooling			
Fan Type	Suction-type cooling fan standard; temperature-controlled (viscous) variable-rate fan optional		
Engine Coolant Rating	-40 deg. C (-40 deg. F)		
Engine Oil Cooler	Oil to water		
Powertrain			
Transmission	5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission optional		
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)		
Maximum Travel Speeds with Standard Engine, Measured with 16.9-28 Rear Tires	<i>Forward</i>	<i>Reverse</i>	
Gear 1	5.8 km/h (3.6 mph)	7.3 km/h (4.5 mph)	5.8 km/h (3.6 mph) 7.3 km/h (4.5 mph)
Gear 2	10.6 km/h (6.6 mph)	13.3 km/h (8.3 mph)	10.6 km/h (6.6 mph) 13.4 km/h (8.3 mph)
Gear 3	21.4 km/h (13.3 mph)	21.2 km/h (13.2 mph)	21.7 km/h (13.5 mph) 21.4 km/h (13.3 mph)
Gear 4	35.2 km/h (21.9 mph)	—	35.1 km/h (21.8 mph) —
Gear 5	40.0 km/h (24.9 mph)	—	40.0 km/h (24.9 mph) —
Axles			
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		22 deg.
Axle Ratings		<i>Mechanical-Front-Wheel Drive (MFWD)</i>	<i>Rear</i>
SAE J43	<i>Non-Powered Front</i> 5500 kg (12,125 lb.)	5500 kg (12,125 lb.)	7000 kg (15,432 lb.)
Dynamic	8500 kg (18,739 lb.)	8500 kg (18,739 lb.)	10 500 kg (23,149 lb.)
Static	22 500 kg (49,604 lb.)	23 500 kg (51,809 lb.)	26 000 kg (57,320 lb.)
Ultimate	35 000 kg (77,162 lb.)	37 000 kg (81,571 lb.)	39 500 kg (87,083 lb.)
Differentials			
MFWD Axle	Automatic, limited-slip traction control		
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock		
Steering (ISO 5010)			
Axle	<i>Non-Powered Front</i>	<i>MFWD</i>	
Curb-Turning Radius			
With Brakes	3.53 m (11 ft. 7 in.)	3.67 m (12 ft. 0 in.)	
Without Brakes	4.13 m (13 ft. 7 in.)	4.35 m (14 ft. 3 in.)	
Bucket-Clearance Circle			
With Brakes	10.36 m (34 ft. 0 in.)	10.48 m (34 ft. 5 in.)	
Without Brakes	11.23 m (36 ft. 10 in.)	11.47 m (37 ft. 8 in.)	
Steering Wheel Turns (lock to lock)	3.2	2.7	
MFWD Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears		
Rear Axle	Heavy duty, outboard planetary final drives distribute shock loads over 4 gears		
Brakes (ISO 3450)			
Service	Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing		
Parking	Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control		
Hydraulics			
Main Pump	Open center, gear type, tandem with unloader		
Pump Flow at 2,200 rpm			
Backhoe	136 L/m (36 gpm)		
Loader	106 L/m (28 gpm)		



# 315SL

Overall Dimensions	315SL
A Ground Clearance, Minimum	351 mm (14 in.)
B Overall Length, Transport	5.96 m (19 ft. 7 in.)
C Stabilizer Spread	2.26 m (7 ft. 5 in.)
D Height to Top of ROPS/Cab	2.84 m (9 ft. 4 in.)
E Length from Axle to Axle	
Non-Powered Front Axle	2.16 m (7 ft. 1 in.)
MFWD Axle	2.19 m (7 ft. 2 in.)



## Backhoe Dimensions and Performance

Backhoe specifications are with 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 65 deg.

Bucket Range	305–762 mm (12–30 in.)
Digging Force	
Bucket Cylinder	55.0 kN (12,356 lb.)
With Heavy-Duty Cylinder Option	67.8 kN (15,254 lb.)
Crowd Cylinder	36.6 kN (8,231 lb.)
Swing Arc	180 deg.
Operator Control	2 levers

	With Optional Extendable Dipperstick		
	With Standard Backhoe	Retracted	Extended
F Loading Height, Truck Loading Position	3.57 m (11 ft. 8 in.)	3.69 m (12 ft. 1 in.)	4.31 m (14 ft. 2 in.)
G Reach from Center of Swing Pivot	5.44 m (17 ft. 10 in.)	5.61 m (18 ft. 5 in.)	6.62 m (21 ft. 9 in.)
H Reach from Center of Rear Axle	6.80 m (22 ft. 4 in.)	6.98 m (22 ft. 11 in.)	7.98 m (26 ft. 2 in.)
I Digging Depth (SAE maximum)	4.17 m (13 ft. 8 in.)	4.34 m (14 ft. 3 in.)	5.39 m (17 ft. 8 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.13 m (13 ft. 6 in.)	4.30 m (14 ft. 1 in.)	5.35 m (17 ft. 7 in.)
2440-mm (8 ft.) Flat Bottom	3.77 m (12 ft. 5 in.)	3.96 m (13 ft. 0 in.)	5.09 m (16 ft. 9 in.)
K Overall Width (less loader bucket)	2.43 m (8 ft. 0 in.)	2.41 m (7 ft. 11 in.)	—
L Side-Shift from Tractor Centerline	537 mm (21 in.)	537 mm (21 in.)	537 mm (21 in.)
M Wall to Swing Centerline	604 mm (24 in.)	604 mm (24 in.)	604 mm (24 in.)
N Bucket Rotation	190 deg.	190 deg.	190 deg.
O Transport Height	3.63 m (11 ft. 11 in.)	3.63 m (11 ft. 11 in.)	3.63 m (11 ft. 11 in.)

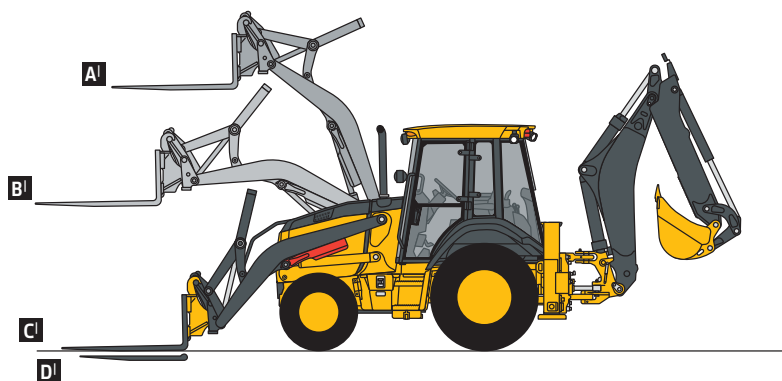


## Loader Dimensions and Performance 315SL

<b>P</b> Bucket Dump Angle, Maximum	45 deg.			
<b>Q</b> Rollback Angle at Ground Level	40 deg.			
	<i>Heavy-duty</i>	<i>Heavy-duty</i>	<i>Multipurpose</i>	<i>Multipurpose</i>
Bucket Capacity	0.77 m <sup>3</sup> (1.00 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)	0.96 m <sup>3</sup> (1.25 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)
Width	2184 mm (86 in.)	2337 mm (92 in.)	2184 mm (86 in.)	2337 mm (92 in.)
Weight	363 kg (800 lb.)	521 kg (1,148 lb.)	794 kg (1,750 lb.)	863 kg (1,902 lb.)
Breakout Force	48.3 kN (10,866 lb.)	46.8 kN (10,532 lb.)	43.5 kN (9,789 lb.)	43.2 kN (9,714 lb.)
Lift Capacity, Full Height	3375 kg (7,440 lb.)	3322 kg (7,324 lb.)	2875 kg (6,338 lb.)	2834 kg (6,248 lb.)
<b>R</b> Height to Bucket Hinge Pin, Maximum	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
<b>S</b> Dump Clearance, Bucket at 45 deg.	2.71 m (8 ft. 11 in.)	2.68 m (8 ft. 10 in.)	2.65 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)
<b>T</b> Reach at Full Height, Bucket at 45 deg.	734 mm (28.9 in.)	695 mm (27.4 in.)	737 mm (29.0 in.)	737 mm (29.0 in.)
<b>U</b> Digging Depth Below Ground, Bucket Level	106 mm (4.2 in.)	151 mm (5.9 in.)	147 mm (5.8 in.)	147 mm (5.8 in.)
<b>V</b> Length from Front Axle Centerline to Bucket Cutting Edge	2.02 m (6 ft. 8 in.)	2.04 m (6 ft. 8 in.)	2.09 m (6 ft. 10 in.)	2.09 m (6 ft. 10 in.)

## Lift Capacity with Quick-Coupler Forks

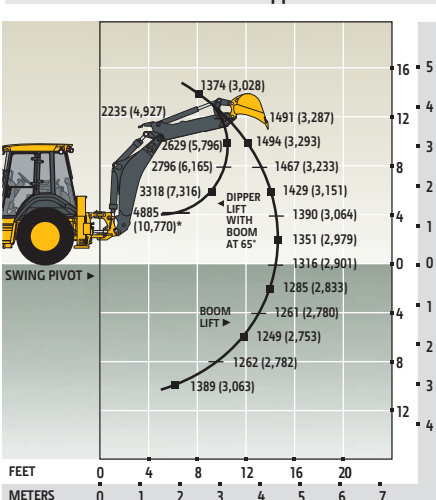
<b>Hydraulic Capacity</b>	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines
<b>A<sup>1</sup></b> Maximum Height	2073 kg (4,570 lb.)	1891 kg (4,170 lb.)
<b>B<sup>1</sup></b> Maximum Reach	3162 kg (6,971 lb.)	3003 kg (6,621 lb.)
<b>C<sup>1</sup></b> At Ground Line	4145 kg (9,138 lb.)	3883 kg (8,561 lb.)
<b>D<sup>1</sup></b> Below Ground Line	211 mm (8.3 in.)	211 mm (8.3 in.)



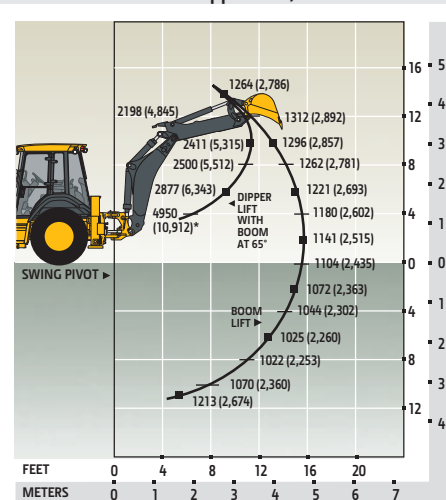
## Lift Capacity with Bucket

Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are 87% of the maximum lift force available. Calculated with 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) bucket. Bucket impacts overall lift capacity.

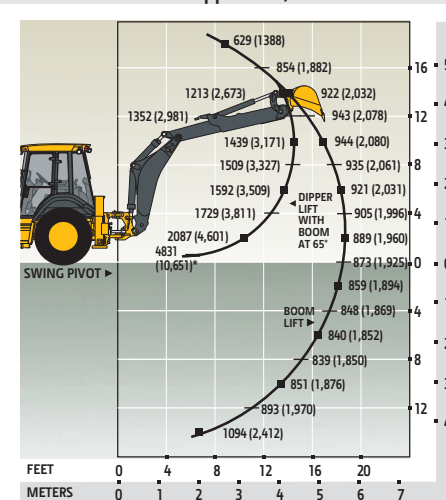
### STANDARD LIFT With Standard Dipperstick



### STANDARD LIFT With 1.06-m (3 ft. 6 in.) Extendable Dipperstick, Retracted



### STANDARD LIFT With 1.06-m (3 ft. 6 in.) Extendable Dipperstick, Extended



\*Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground.



# 410L SPECIFICATIONS

Engine		410L			
Manufacturer and Model	John Deere PowerTech™ 4045TT096 turbocharged	John Deere PowerTech™ E 4045HT087 turbocharged			
Non-Road Emission Standard	EPA Tier 2/EU Stage II	EPA Tier 3/EU Stage IIIA			
Displacement	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)			
Net Peak Power (ISO 9249)	72 kW (97 hp) at 2,100 rpm	77 kW (103 hp) at 2,008 rpm			
With Optional Viscous Fan, Cab, and 120-amp Alternator	75 kW (101 hp) at 2,100 rpm	79 kW (107 hp) at 2,100 rpm			
Net Peak Torque (ISO 9249)	382 Nm (282 lb.-ft.) at 1,500 rpm	423 Nm (312 lb.-ft.) at 1,300 rpm			
With Optional Viscous Fan, Cab, and 120-amp Alternator	388 Nm (287 lb.-ft.) at 1,500 rpm	428 Nm (316 lb.-ft.) at 1,400 rpm			
Net Torque Rise	23%	36%			
With Optional Viscous Fan, Cab, and 120-amp Alternator	23%	31%			
Lubrication	Pressure system with spin-on filter and cooler	Pressure system with spin-on filter and cooler			
Air Cleaner	Dual-stage dry type with safety element and evacuator valve				
Cooling					
Fan Type	Suction-type cooling fan standard; temperature-controlled (viscous) variable-rate fan optional				
Engine Coolant Rating	-40 deg. C (-40 deg. F)				
Engine Oil Cooler	Oil to water				
Powertrain					
Transmission	5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission optional				
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)				
Maximum Travel Speeds with Standard Engine, Measured with 21L-24 Rear Tires					
	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>	
Gear 1	5.6 km/h (3.5 mph)	7.1 km/h (4.6 mph)	5.7 km/h (3.5 mph)	7.2 km/h (4.5 mph)	
Gear 2	10.3 km/h (6.4 mph)	13.0 km/h (8.4 mph)	10.5 km/h (6.5 mph)	13.3 km/h (8.3 mph)	
Gear 3	20.7 km/h (12.9 mph)	20.5 km/h (13.6 mph)	21.4 km/h (13.3 mph)	21.2 km/h (13.2 mph)	
Gear 4	33.0 km/h (20.5 mph)	—	34.5 km/h (21.4 mph)	—	
Gear 5	40.0 km/h (24.9 mph)	—	40.0 km/h (24.9 mph)	—	
Axles					
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		22 deg.		
Axle Ratings			<i>Mechanical-Front-Wheel Drive</i>		
	<i>Non-Powered Front</i>	<i>(MFWD)</i>	<i>Rear</i>		
SAE J43	5500 kg (12,125 lb.)	5500 kg (12,125 lb.)	7500 kg (16,535 lb.)		
Dynamic	8500 kg (18,739 lb.)	8500 kg (18,739 lb.)	10 500 kg (23,149 lb.)		
Static	22 500 kg (49,604 lb.)	23 500 kg (51,809 lb.)	26 000 kg (57,320 lb.)		
Ultimate	35 000 kg (77,162 lb.)	37 000 kg (81,571 lb.)	39 500 kg (87,083 lb.)		
Differentials					
MFWD Axle	Automatic, limited-slip traction control				
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock				
Steering (ISO 5010)		Hydrostatic power steering and emergency steering			
Axle	<i>Non-Powered Front</i>	<i>MFWD</i>			
Curb-Turning Radius					
With Brakes	3.61 m (11 ft. 10 in.)		3.67 m (12 ft. 0 in.)		
Without Brakes	4.23 m (13 ft. 11 in.)		4.35 m (14 ft. 3 in.)		
Bucket-Clearance Circle					
With Brakes	10.27 m (33 ft. 8 in.)		10.37 m (34 ft. 0 in.)		
Without Brakes	11.17 m (36 ft. 8 in.)		11.37 m (37 ft. 4 in.)		
Steering Wheel Turns (lock to lock, flow amplified)	3.1 to 4.3		2.6 to 3.6		
MFWD Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears				
Rear Axle	Heavy duty, outboard planetary final drives distribute shock loads over 4 gears				

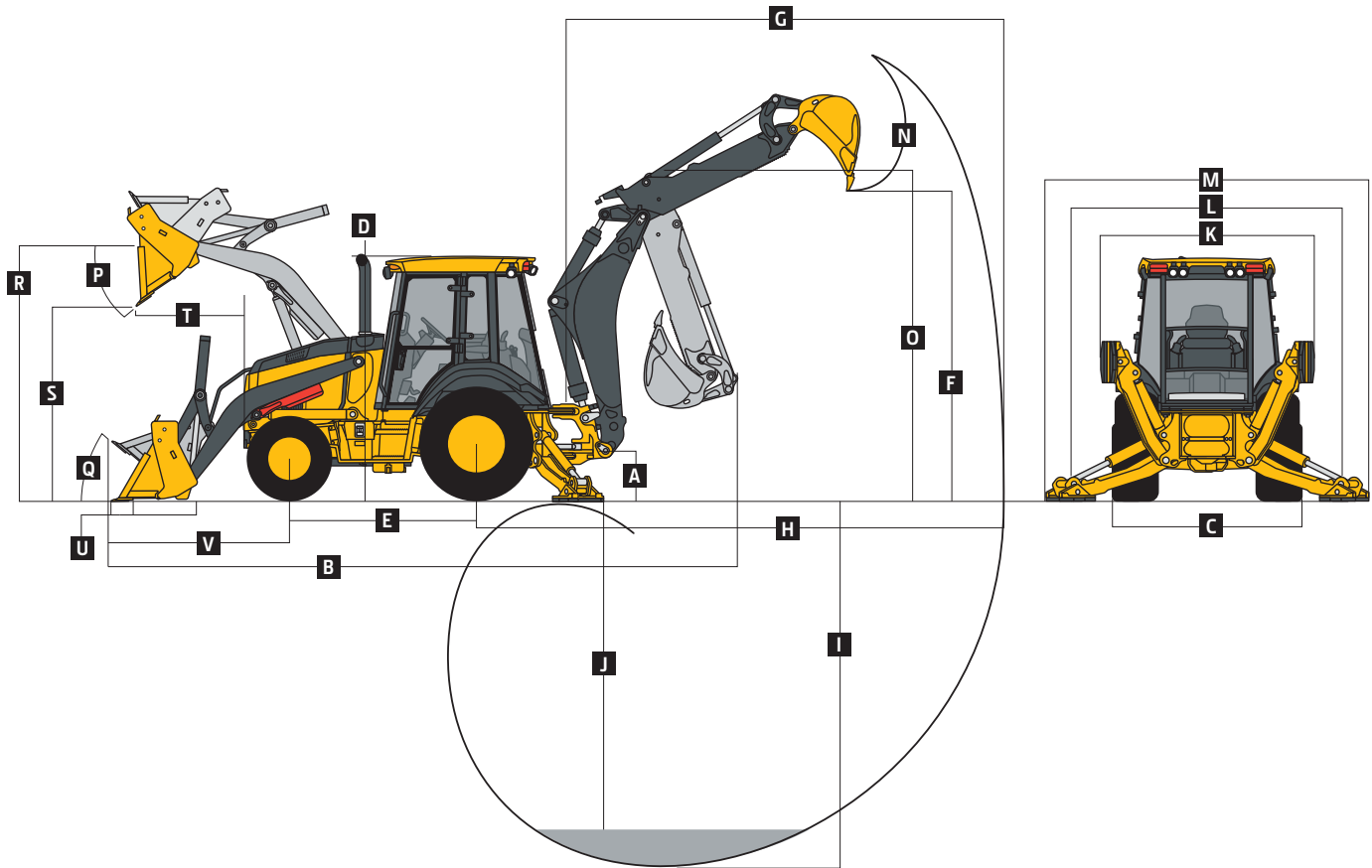
# 410L SPECIFICATIONS



<b>Powertrain</b> (continued)	<b>410L</b>	
<b>Brakes</b> (ISO 3450)		
Service	Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing	
Parking	Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control	
<b>Hydraulics</b>		
Main Pump	Pressure compensated load sensing (PCLS), axial-piston pump	
Pump Flow at 2,200 rpm, Backhoe and Loader	159 L/m (42 gpm)	
System Relief Pressure, Backhoe and Loader	24 993 kPa (3,625 psi)	
<b>Controls</b>		
Backhoe	2-lever manual standard; pilot controls with pattern select and manual and/or electric auxiliary functions optional; field kit available for 3-lever manual controls with foot swing	
Loader	Single-lever control with electric clutch cutoff and MFWD (momentary) standard; single-lever control with electric clutch cutoff switch, electrohydraulic (EH) proportional auxiliary roller, MWFD (momentary), and transmission quick-shift optional	
<b>Electrical</b>		
Voltage	12 volt	
Alternator Rating	90 amp	
<b>Lights</b>	10 halogen: 4 front, 4 rear, and 2 side docking (32,500 candlepower each); turn signals and flashers: 2 front and 2 rear; stop and taillights; and 2 rear reflectors	
<b>Operator Station</b>		
Type (SAE J1040)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof	
<b>Tires/Wheels</b>		
	<i>Front</i>	<i>Rear</i>
Non-Powered Front Axle	12.5/80-18 F3 (12)	21L-24 R-4 (12)
With MFWD	12.5/80-18 R4 (10)	21L-24 R-4 (12)
	12.5/80-18 I3 (12)	21L-24 R-4 (12)
	340/80R18 XMCL	500/70R24 XMCL
	340/80R18 550	500/70R24 550
	340/80R18 580	500/70R24 580
<b>Serviceability</b>		
<b>Refill Capacities</b>	<i>EPA Tier 2/EU Stage II</i>	<i>EPA Tier 3/EU Stage IIIA</i>
Cooling System	21 L (22.2 qt.)	30 L (31.7 qt.)
Rear Axle	18 L (19 qt.)	18 L (19 qt.)
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)	13 L (13.7 qt.)
Torque Converter and Transmission	15.1 L (16 qt.)	15.1 L (16 qt.)
Fuel Tank (with ground-level fueling)	140.1 L (37 gal.)	140.1 L (37 gal.)
Hydraulic System	126.8 L (33.5 gal.)	126.8 L (33.5 gal.)
Hydraulic Reservoir	45 L (11.9 gal.)	45 L (11.9 gal.)
MFWD Housing		
Axle	6.5 L (6.9 qt.)	6.5 L (6.9 qt.)
Planetary (each)	0.9 L (1 qt.)	0.9 L (1 qt.)
Hydra™ XR Hydraulic Oil	Optional	Optional
<b>Operating Weights</b>		
With Full Fuel Tank, 79-kg (175 lb.) Operator, Standard Equipment, and 340-kg (750 lb.) Counterweight	7959 kg (17,547 lb.)	
Typical with Cab, Extendable Dipperstick, and 567-kg (1,250 lb.) Counterweight	8720 kg (19,224 lb.)	
<b>Optional Components (weight difference between base equipment and option)</b>		
Cab	263 kg (580 lb.)	
MFWD with Tires	110 kg (242 lb.)	
Extendable Dipperstick	271 kg (597 lb.)	
Front Loader Coupler	257 kg (566 lb.)	
Backhoe Bucket Coupler	64 kg (141 lb.)	

# 410L

Overall Dimensions	410L
A Ground Clearance, Minimum	334 mm (13 in.)
B Overall Length, Transport	7.43 m (24 ft. 5 in.)
C Width Over Tires	2.18 m (7 ft. 2 in.)
D Height to Top of ROPS/Cab	2.87 m (9 ft. 5 in.)
E Length from Axle to Axle	
Non-Powered Front Axle	2.16 m (7 ft. 1 in.)
MFWD Axle	2.19 m (7 ft. 2 in.)



## Backhoe Dimensions and Performance

Backhoe specifications are with 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 60 deg.

Bucket Range	305–762 mm (12–30 in.)		
Digging Force			
Bucket Cylinder	69.9 kN (15,723 lb.)		
Crowd Cylinder	44.1 kN (9,907 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		

	With Optional Extendable Dipperstick		
	With Standard Backhoe	Retracted	Extended
F Loading Height, Truck Loading Position	3.98 m (13 ft. 1 in.)	4.02 m (13 ft. 2 in.)	4.73 m (15 ft. 6 in.)
G Reach from Center of Swing Pivot	6.02 m (19 ft. 9 in.)	6.02 m (19 ft. 9 in.)	7.14 m (23 ft. 5 in.)
H Reach from Center of Rear Axle	7.14 m (23 ft. 5 in.)	7.14 m (23 ft. 5 in.)	8.26 m (27 ft. 1 in.)
I Digging Depth (SAE maximum)	4.83 m (15 ft. 10 in.)	4.83 m (15 ft. 10 in.)	5.99 m (19 ft. 8 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.78 m (15 ft. 8 in.)	4.78 m (15 ft. 8 in.)	5.96 m (19 ft. 7 in.)
2440-mm (8 ft.) Flat Bottom	4.47 m (14 ft. 8 in.)	4.47 m (14 ft. 8 in.)	5.73 m (18 ft. 9 in.)
K Stabilizer Width, Transport	2.30 m (7 ft. 7 in.)	2.30 m (7 ft. 7 in.)	2.30 m (7 ft. 7 in.)
L Stabilizer Spread, Operating	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
M Stabilizer Overall Width, Operating	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)
N Bucket Rotation	190 deg.	190 deg.	190 deg.
O Transport Height	3.93 m (12 ft. 11 in.)	3.93 m (12 ft. 11 in.)	3.93 m (12 ft. 11 in.)

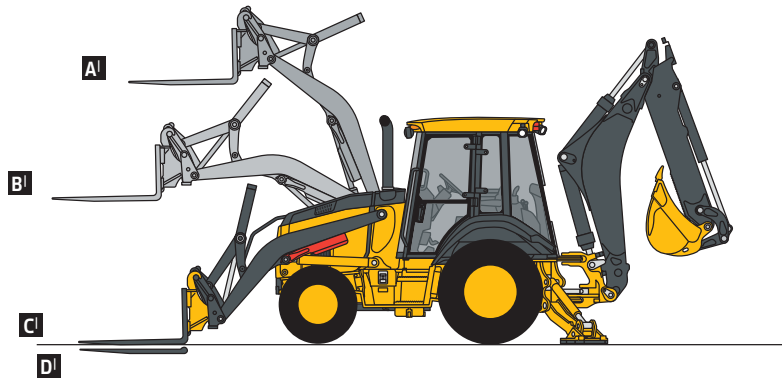
## Loader Dimensions and Performance

410L

<b>P</b> Bucket Dump Angle, Maximum	45 deg.		
<b>Q</b> Rollback Angle at Ground Level	40 deg.		
	<i>Heavy-duty</i>	<i>Heavy-duty</i>	<i>Multipurpose</i>
Bucket Capacity	1.00 m <sup>3</sup> (1.31 cu. yd.)	1.15 m <sup>3</sup> (1.50 cu. yd.)	1.00 m <sup>3</sup> (1.31 cu. yd.)
Width	2346 mm (92 in.)	2394 mm (94 in.)	2346 mm (92 in.)
Weight	521 kg (1,148 lb.)	548 kg (1,208 lb.)	863 kg (1,902 lb.)
Breakout Force	47.3 kN (10,634 lb.)	46.0 kN (10,351 lb.)	43.6 kN (9,813 lb.)
Lift Capacity, Full Height	3243 kg (7,149 lb.)	3134 kg (6,909 lb.)	2761 kg (6,087 lb.)
<b>R</b> Height to Bucket Hinge Pin, Maximum	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
<b>S</b> Dump Clearance, Bucket at 45 deg.	2.68 m (8 ft. 10 in.)	2.64 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)
<b>T</b> Reach at Full Height, Bucket at 45 deg.	750 mm (29.5 in.)	792 mm (31.2 in.)	792 mm (31.2 in.)
<b>U</b> Digging Depth Below Ground, Bucket Level	157 mm (6.2 in.)	157 mm (6.2 in.)	153 mm (6.0 in.)
<b>V</b> Length from Front Axle Centerline to Bucket Cutting Edge	2.04 m (6 ft. 8 in.)	2.10 m (6 ft. 11 in.)	2.09 m (6 ft. 10 in.)

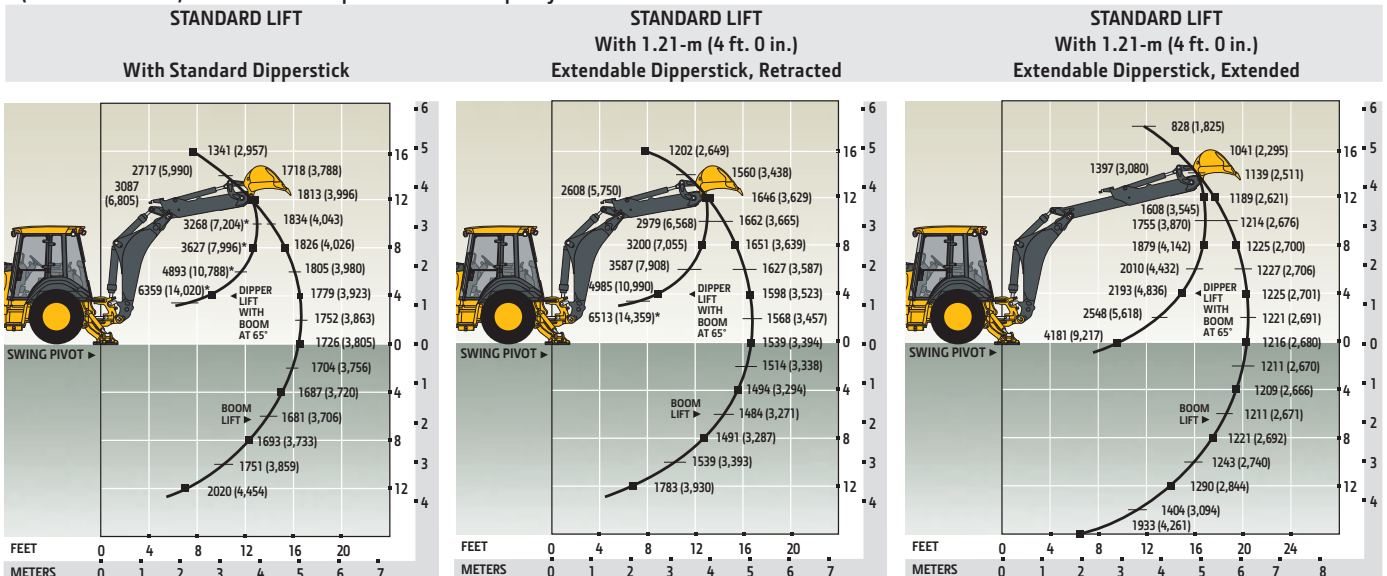
## Lift Capacity with Quick-Coupler Forks

<b>Hydraulic Capacity</b>	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines
<b>A</b> Maximum Height	2031 kg (4,478 lb.)	1880 kg (4,145 lb.)
<b>B</b> Maximum Reach	3177 kg (7,005 lb.)	3002 kg (6,618 lb.)
<b>C</b> At Ground Line	4208 kg (9,278 lb.)	3613 kg (7,966 lb.)
<b>D</b> Below Ground Line	211 mm (8.3 in.)	211 mm (8.3 in.)



## Lift Capacity with Bucket

Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are 87% of the maximum lift force available. Calculated with 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) bucket. Bucket impacts overall lift capacity.



\*Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground.

# Additional equipment

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

310L	310SL	315SL	410L	Engine
●	●	●	●	Coolant recovery tank with low-level indicator
●	●	●	●	Foldout, hinged cooling system
●	●	●	●	Serpentine belt with automatic belt tensioner
●	●	●	●	Suction-type cooling fan
▲	▲	▲	▲	Viscous variable-rate cooling fan
●	●	●	●	Self-cleaning exhaust aftertreatment system
▲	▲	▲	▲	Chrome exhaust extension
●	●	●	●	Grid heat
			●	Glow plugs
▲	▲	▲	▲	1,000-watt electric engine coolant heater
Powertrain				
●				PowerShift™ transmission: Torque converter with twist-grip TCL and neutral safety switch interlock (1st through 4th gears)
	●	●	●	PowerShift transmission: Torque converter with twist-grip TCL and neutral safety switch interlock (1st through 5th gears)
	●	●	●	5th-gear overdrive
	▲	▲	▲	AutoShift transmission
●	●	●	●	Transmission oil cooler
▲	▲	▲	▲	Transmission remote oil-sampling port
●	●		●	Differential lock, electric foot actuated, protection on/off
		●		Differential lock, electric foot actuated
	●	●	●	Auto shutdown
●	●	●	●	Planetary final drives
●	●	●	●	Power-assisted hydraulic service brakes (conform to ISO 3450): Inboard, wet multi-disc, self-adjusting and self-equalizing
●	●	●	●	Parking/emergency brake with electric switch control (conforms to ISO 3450): Spring applied, hydraulically released wet multi-disc / Independent of service brakes
●	●	●	●	Hydrostatic power steering with emergency manual mode
▲	▲	▲	▲	Non-powered front axle
●				MFWD with open differential: Electric on/off control / Sealed axle
▲	●	●	●	MFWD with traction-control limited-slip differential: Electric on/off control / Sealed axle
●	●	●	●	Automatic MFWD braking (4th and 5th gear overdrive only)
▲	▲	▲	▲	MFWD driveshaft guard
Backhoe				
			●	Lift mode
●				Standard dipperstick, 4.27-m (14 ft. 0 in.) digging depth
	●			Standard dipperstick, 4.34-m (14 ft. 3 in.) digging depth

310L	310SL	315SL	410L	Backhoe (continued)
		●		Standard dipperstick, 4.17-m (13 ft. 8 in.) digging depth
			●	Standard dipperstick, 4.83-m (15 ft. 10 in.) digging depth
▲	▲	▲		Extendable dipperstick, 1.06-m (3 ft. 6 in.) extension
			▲	Extendable dipperstick, 1.21-m (4 ft. 0 in.) extension
	▲	▲		Heavy-duty backhoe bucket cylinder
●	●	●	●	ISO (Deere) 2-lever mechanical backhoe controls
▲	▲	▲	▲	2-lever pilot controls with pattern-selection feature
		●		Backhoe transport lock lever
●	●	●	●	Swing lock pin stored in operator's station
●	●	●	●	Stabilizers with 2-direction anti-drift valves
	▲			Extended (long) stabilizers with reversible pads
	▲	▲	▲	Severe-duty backhoe bucket with lift loops
▲	▲		▲	Backhoe couplers for John Deere, Case, and Cat buckets
▲	▲	▲	▲	Auxiliary backhoe valve for swingers, thumbs, etc. with auxiliary plumbing
▲	▲	▲	▲	Auxiliary backhoe valve for hammers and compactors with auxiliary plumbing
▲	▲		▲	Hydraulic thumb
Loader†				
●	●	●	●	Loader bucket anti-spill (rollback)
●	●	●	●	Return-to-dig feature
●	●	●	●	Single-lever control with electric clutch disconnect
●	●	●	●	Bucket-level indicator
●	●	●	●	Loader boom service lock
▲		▲		Auxiliary loader hydraulics with 2-lever control
	▲		▲	Auxiliary loader hydraulics with single control lever with EH auxiliary control (MFWD and clutch disconnect)
▲	▲	▲	▲	Hydraulic coupler for buckets, forks, etc.
	▲	▲	▲	Ride control
	▲	▲	▲	Auto ride control field kit
Hydraulic System				
●				106-L/m (28 gpm) single-gear pump, open-center system
	●	●		136-L/m (36 gpm) tandem-gear pump, open-center system
			●	159-L/m (42 gpm) axial-piston pump, PCLS system
	●	●	●	Auto-idle
●	●	●	●	Economy mode
●	●	●	●	Dedicated hydraulic reservoir

†See dealer for range of heavy-duty, multipurpose, and coupler buckets and forks.

Actual machine configuration may differ from image. Not all models available in all countries.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. No derating is required up to 1500-m (5,000 ft.) altitude and up to 3050-m (10,000 ft.) with optional altitude-compensating turbocharger. Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with ISO standards. Except where otherwise noted, these specifications are based on units with 12.5/80-18 10PR (R4) front tires; a 310L unit with 19.5L-24-in. 12 PR (R4) tubeless rear tires, 0.86-m<sup>3</sup> (1.12 cu. yd.) loader bucket, and 610-mm x 0.18-m<sup>3</sup> (24 in. x 6.5 cu. ft.) backhoe bucket; a 310SL unit with 19.5L-24-in. 12 PR (R4) tubeless rear tires, 1.00-m<sup>3</sup> (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) backhoe bucket; a 315SL unit with 19.5L-24-in. 12 PR (R4) tubeless rear tires, 1.00-m<sup>3</sup> (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) backhoe bucket; and a 410L unit with 21L-24-in. 12 PR (R4) tubeless rear tires, 1.15-m<sup>3</sup> (1.5 cu. yd.) loader bucket, and 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) backhoe bucket.

# Additional equipment *(continued)*

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

310L	310SL	315SL	410L	Electrical System
●	●	●	●	12-volt system
●	●	●	●	90-amp alternator (with canopy and quarter cab)
●	●	●	●	120-amp alternator (with cab only)
●	●	●	●	Single battery with 190-min. reserve capacity and 925 CCA
▲	▲	▲	▲	Dual batteries with 380-min. reserve capacity and 1,850 CCA
▲	▲	▲	▲	Remote jump posts and battery disconnect
Lights				
●	●	●	●	Halogen lights (10), 32,500 candlepower each (4 front driving/working, 4 rear working, and 2 side docking)
●	●	●	●	Turn signal/flashing (2 front and 2 rear)
●	●	●	●	Rear stop and tail (2)
Operator's Station				
●	●	●	●	Modular-design ROPS/FOPS (Level 2) canopy with molded roof (meets ISO 3449 and ISO 3471/SAE J1040): Isolation mounted
●	●	●	●	Molded floor mats (with pilot controls only)
●	●	●	●	12-volt outlet
●	●	●	●	Lockable right-side storage
▲	▲	▲	▲	Lockable left-hand storage with cup holders
▲	▲	▲	▲	Interior front-view mirror
▲	▲	▲	▲	Outside rearview mirrors
●	●	●	●	Rotary-dial hand throttle
●	●	●	●	Suspended foot throttle
▲	▲	▲	▲	Air-suspension seat (with cab only)
●				Key start switch with electric fuel shutoff
●	●	●	●	Tilt steering, infinitely adjustable (with cab only)
▲	▲		▲	Tilt steering, infinitely adjustable (with canopy and quarter cab)
	●	●	●	Keyless start
▲	●	●	●	Machine security (enabled through monitor)
●	●	●	●	Digital display of engine hours, engine rpm, and system voltage
	●	●	●	Sealed-switch module
	●	●	●	Multi-function lever: Turn signals / Windshield wipers / Some light functionality
●	●	●	●	Monitor system with audible and visual warnings: Engine air restriction / Low alternator voltage / Engine oil pressure / Hydraulic filter restriction / Parking brake on/off / Aftertreatment temperature / Transmission fluid temperature / Fuel / Hour meter / Machine diagnostic information via 4-push-button/LCD operator interface

310L	310SL	315SL	410L	Operator's Station <i>(continued)</i>
●	●	●	●	<b>Canopy:</b> Mechanical-suspension deluxe vinyl swivel seat with lumbar adjustment and armrests (fully adjustable)
▲	▲			<b>Quarter Cab:</b> Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield, and windshield wiper (1 front)
▲	▲	▲	▲	<b>Cab with Dual Doors and A/C:</b> Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment / Headliner, dome light, left and right cab doors, tinted safety glass, windshield wipers (1 rear and 1 front), front windshield washer, fresh-air intake, and heater/defroster/pressurizer (11.7-kW [40,000 Btu/h] heater) / A/C (7.6-kW [26,000 Btu/h] output and CFC-free R134a refrigerant)
▲	▲	▲	▲	AM/FM/weather-band radio (with cab only)
▲	▲	▲	▲	Premium radio package with XM Satellite Radio capability (with cab only; includes additional 12-volt and USB outlets [XM subscription based upon availability in specific countries; see your dealer for details])
Overall Vehicle				
●	●	●	●	1-piece unitized construction mainframe
●	●	●	●	Vehicle tie-downs (2 front and 2 rear)
●	●	●	●	Remote grease bank for front axle
●	●	●	●	Front cover
▲	▲	●	▲	Heavy-duty front bumper
▲	▲	▲	▲	Front counterweight – 204 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb.)
▲	▲	▲	▲	Rubber grille bumpers
●	●	●	●	Fuel tank, 140.1 L (37 gal.), ground-level fueling
●	●	●	●	2-position easy-tilt hood
●	●	●	●	Extended grille frame
●	●	●	●	Removable toolbox with padlock hasp
●	●	●	●	Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank
●	●	●	●	Reverse warning alarm
●	●	●	●	Dent-resistant full-coverage rear fenders
▲	▲		▲	Backhoe boom-protection plate
●	●	●	●	JDLink™ Ultimate wireless communication system (available in specific countries; see your dealer for details)

Actual machine configuration may differ from image. Not all models available in all countries.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. No derating is required up to 1500-m (5,000 ft.) altitude and up to 3050-m (10,000 ft.) with optional altitude-compensating turbocharger. Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with ISO standards. Except where otherwise noted, these specifications are based on units with 12.5/80-18 10PR (R4) front tires; a 310L unit with 19.5L-24-in. 12 PR (R4) tubeless rear tires, 0.86-m<sup>3</sup> (1.12 cu. yd.) loader bucket, and 610-mm x 0.18-m<sup>3</sup> (24 in. x 6.5 cu. ft.) backhoe bucket; a 310SL unit with 19.5L-24-in. 12 PR (R4) tubeless rear tires, 1.00-m<sup>3</sup> (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) backhoe bucket; a 315SL unit with 19.5L-24-in. 12 PR (R4) tubeless rear tires, 1.00-m<sup>3</sup> (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) backhoe bucket; and a 410L unit with 21L-24-in. 12 PR (R4) tubeless rear tires, 1.15-m<sup>3</sup> (1.5 cu. yd.) loader bucket, and 610-mm x 0.21-m<sup>3</sup> (24 in. x 7.5 cu. ft.) backhoe bucket.



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